

# NEGOTIATION TOOLS FOR VEGETABLE COMMODITY CHAIN IN VIENTIANE

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**SUSPER project– “Sustainable development of peri-urban agriculture in South-east Asia”**

**COMPONENT 3 – TECHNICAL AND INSTITUTIONAL INNOVATION**

**SUB-COMPONENT: INSTITUTIONAL INNOVATION (REPORT 2002)**

Jean-François LE COQ – CIRAD Amis, Ecopol

## **I- CONTEXT AND FRAMEWORK**

Since the beginning of 2002, CIRAD and the AVRDC have implemented a regional project on Peri-urban agriculture funded by the French Ministry of Foreign Affairs. This co-operative affair is entitled the “Sustainable development of Peri-urban agriculture Southeast Asia” project or SUSPER project.

CIRAD Amis Ecopol is involved in component 3 “Technical and institutional innovation” of the project. The main objective of this component is to help local stakeholders of peri-urban agriculture to design new institutional arrangements that enable peri-urban agriculture to better play its role, especially in terms of urban food supply. Thus, the specific objective of CIRAD Amis Ecopol’s participation in the project is to provide methodological support to implement dialogue and workshops to enhance functionality of the commodity chain. Additionally, to enhance agricultural development in urban and peri-urban areas both in Vientiane and Hanoi. As another research team in Hanoi implements this component, CIRAD Amis Ecopol’s activity has been focused during the first year of the project on peri-urban agriculture in Vientiane. There, consultation with AVRDC-CIRAD project co-ordinators unveiled a wide range of potential support related to several commodity systems. Safe vegetables, amongst others, and the need for further information on tools developed by the CIRAD Ecopol Team to analyse commodity chains and helping on a common decision-making process. A first mission was realized in Vientiane in September 2002 to further identify with Lao researchers involved in the other research component of the project and local stakeholders in charge of the development of peri-urban agriculture in Vientiane. The main area of interest deals with defining objectives and establishing a work plan and methodology and tools in relationship with the implementation of other components. This first mission confirmed a strong interest from the local stakeholders in the vegetable and animal product commodities chain. For both, lack of available information on the structure and functioning of the commodity chain and the current organization of the institution in charge of their development has been underlined.

For the first commodity chain, animal husbandry, CIRAD Amis Ecopol provided support to the researchers in charge of the animal husbandry component in the use

of participatory methods to analyse structure and functioning of pig and cattle commodity chains<sup>1</sup>.

For the vegetable sector, instability of price and competitiveness with Thai products have been identified as the main issues. Since there was a strong involvement of other components of the project in this sector (technical experiments and innovations as well as production and market analysis), the vegetable commodity chain was chosen for further activities of the third component in Laos.

As a first step to initiate dialogue among stakeholders of the vegetable commodity chain (see research activity program in annex), a second mission was organised. It was realised in early December 2002 to prepare and implement with the Department of Agriculture of the Lao Ministry of Agriculture a first meeting with stakeholders of the vegetables sector. This meeting aims at informing local stakeholders of some preliminary findings raised from the production and market survey carried out by the project (component 1 and 2). Also to identify participatory methods, markets opportunities and issues for the vegetables sectors development in Vientiane peri-urban area.

This report will give an overview of the vegetable sector in Vientiane prefecture in terms of production and market (supply and demand). The report is based on secondary data (see bibliography in annex) and some preliminary results from the analysis of the data collected during the production and market surveys carried out by the Susper project. Additionally results will be presented of the meeting held in Vientiane in early December 2002. Finally, some recommendations for further steps are given in conclusion.

## **II- OVERVIEW OF THE VEGETABLE SECTOR IN VIENTIANE PREFECTURE.**

### **A) PRODUCTION**

Laotian vegetable production increased during the 1990s from 53,5000T in 1990 to 117,000T in 1998. This rapid production increase is mainly due to a large size increase of the cultivated area (+ 250% during this period). Yield had decreased during this period from 7.5 - 6.5t. Yield remains low compared with other countries in the area. Laotian vegetable yields are about 138% lower of those of South Vietnam (AVDRC, 2002).

#### **1. General overview of Vientiane prefecture vegetable production**

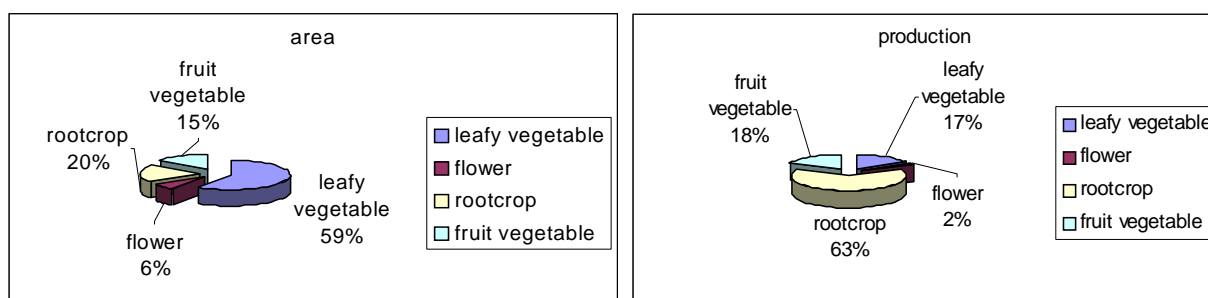
Vientiane municipality registered a rapid increase during the last decade in production of vegetables. Most of the production in Vientiane municipality is

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<sup>1</sup> The Lao coordinator of the project and the Ministry of Agriculture and Forestry member in charge of animal husbandry component in Vientiane were invited to participate to a presentation meeting on participatory methods to analyse commodity chains organized by Cirad-Amis-Ecopol and Vasi in Hanoi.

dedicated to leafy vegetables that represent 59% of the total vegetable cultivated area (Figure 1).

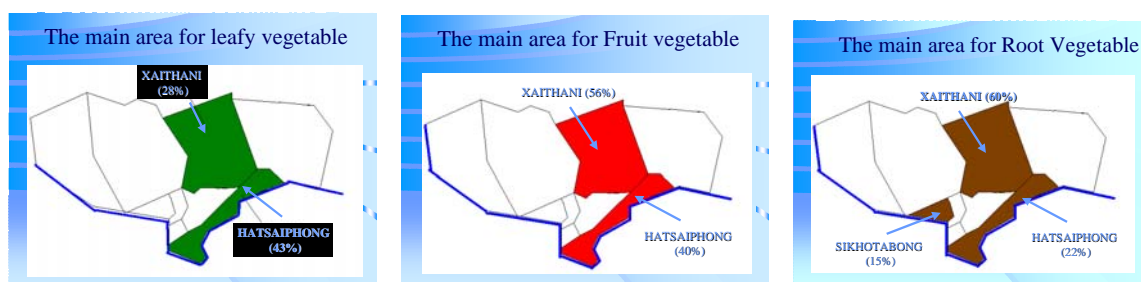
**Figure 1 – Share of area and production according to the type of vegetable in Vientiane prefecture**



Source: Vientiane prefecture statistics

According to Vientiane prefectural statistics, the main production districts for vegetables are Xaithani and Hatsayphong (Figure 2).

**Figure 2 – Main area of production for leafy, fruit and root vegetable in Vientiane Municipality**

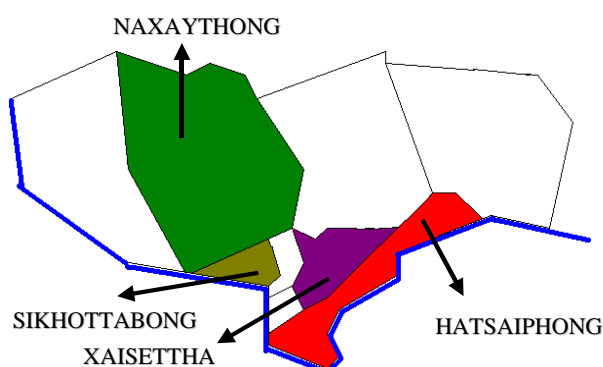


Source: Vientiane prefecture statistics

## **2. Some preliminary results from production survey.**

The production survey was done in four districts of Vientiane municipality (Figure 3), namely: Naxaythong, Hatsayphong, Sikhottabong and Xaisettha on a total number of 200 households.

**Figure 3 – Location of surveyed districts.**



## 2.1. Access to land

This survey shows high heterogeneity of total cultivated area between districts. Total area cultivated area is around 1.7 ha per household, ranging from 1.3 ha in Xaisettha district to 2.2 ha on the Naxaythong flood plain. These similarities between farmers and outputs are linked to farm size since the cultivated area range is from 0,12 ha to 8,00 ha (Table 1).

**Table 1 – Total area and cultivated area in surveyed district**

	Total area			Cultivated Area		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Hatsayphong	1,36	0,16	9,76	1,19	0,16	8,00
Xaisettha	1,31	0,16	3,84	1,18	0,12	3,52
Sikhottabong	1,87	0,24	9,00	1,28	0,24	5,14
Naxaythong	2,19	0,22	7,04	1,86	0,20	6,29
Group Total	1,69	0,16	9,76	1,37	0,12	8,00

Source: SUSPER project production survey 2002

In terms of access to land for production, renting land for cultivation is quite developed since 30% of the surveyed households rent land. This situation is especially visible in Hatsayphong district where half of the surveyed farmers rent land for production (Table 2). The rental cost is higher in Naxaythong (900,000 kip/ha/year – 90 USD/ha/year) and in Hatsayphong (738 182 kip/ha/year – 74 USD/ha/year).

**Table 2 – Renting area and rent cost**

	No	Percentage of renting			Cost (kip/ha/year)
		0-1 ha	1-2 ha	2-3 ha	
Hatsayphong	50	38	10	2	738 182
Xaisettha	80	18	3	0	330 000
Sikhottabong	84	16	0	0	355 000
Naxaythong	74	16	6	4	900 000

Source: Susper project production survey 2002



## **2.2. The cropping systems**

A preliminary production system pre-typology based on the combination of the cropping system carried out by surveyed farmers' shows a relative variability among districts (Table 3). Due to time constraints, the correlation between the type of cropping system and land, capital, labour, water resources and access, family structure and knowledge hasn't been assessed. There has been a call for further analysis to better grasp the farmers' strategies according to their constraints and objective. Nevertheless, this pre-typology shows that most of the farmers combine vegetable and rice production. Only Sikhottabong district shows a specific situation with a high percentage of exclusive vegetable growers. In Hatsayphong and Xaisettha, most of the producers combine one rice crop per year with production of vegetables all year round. In Sikhottabong district, the production of vegetables is limited by flooding and almost no farmers grow vegetables all year round.

**Table 3 – Pre-typology of farm household according to their cropping system**

	Exclusive rice system	Exclusive vegetable system	Rice + vegetable system			
			1 rice / year		2 rice / year	
			Vegetable part of the year	Vegetable all year round	Vegetable part of the year	Vegetable all year round
<b>Hatsayphong</b>	4%	13%	13%	<b>38%</b>	17%	17%
<b>Xaisettha</b>	10%	7%	17%	<b>37%</b>	17%	13%
<b>Sikhottabong</b>	2%	<b>69%</b>	24%	0%	5%	0%
<b>Naxaythong</b>	22%	11%	<b>29%</b>	13%	18%	7%

Source: SUSPER project production survey 2002

### 2.3. Cropping calendar

A rapid analysis of the cropping calendar in the surveyed district shows a contrast in situations between districts<sup>2</sup> (Figure 4, Figure 5, Figure 6, Figure 7).

In Hatsayphong and Xaisettha districts, most of the farmers grow a combination of leafy vegetable (lettuce, Chinese lettuce, peppermint, and coriander), root (onion) and fruit (tomatoes) vegetables. Farmers who grow two rice crops per year tend to focus more on leafy vegetables (lettuce, peppermint, and Chinese lettuce) while those who grow a single rice crop per year combine fruits and vegetables (mainly tomatoes in Hatsayphong, mainly cucumber in Xaisettha).

In Sikhottabong, most farmers don't cultivate during the flooding period. They produce mainly chili and eggplant. Tomatoes are mainly produced by exclusive vegetable growers.

In Naxaythong, the main system developed by farmers is a combination of one rice crop per year and three vegetables (Kang Kong, cucumber and Yard long bean).

This limited analysis shows some spatial specialisation of production areas. Tomato production is mainly developed in Sikhottabong and Hatsayphong districts, cucumber and Kang Kong production in Naxaythong, and eggplant and chilli in Sikhottabong district.

At the farm level, complementary interviews of farmers show that farmers are prompt to change their crops from year to year according to price (last price, expected price and income) and their available investment capacity. Nevertheless, if farmers take an opportunity for increasing their incomes, they integrate market and technical risks in their practice, and grow several crops at the same time.

<sup>2</sup> : For a more accurate analysis of cropping calendar, a further recoding of the database is needed and was not available during the mission.

Figure 4 – Cropping calendar in Hatsayphong district

Main season	Rainy Season							Dry Season					
Solar month	A	M	J	Jy	A	S	O	N	D	J	F	M	
Lao month	5	6	7	8	9	10	11	12	1	2	3	4	
Season		Rainy						Dry 1				Dry 2	
Rice and Vegetable growers													
1 Rice/year	100							0					
Vegetables (3-5) in which													
Onion, lettuce, peppermint, coriander, tomatoes													
Rice and Vegetable growers													
2 rice per year													
Lettuce													
Peppermint													
Chinese lettuce													

Source: Susper project production survey 2002

Figure 5 – Cropping calendar in Xaisettha district

Main season	Rainy Season							Dry Season				
Solar month	A	M	J	Jy	A	S	O	N	D	J	F	M
Lao month	5	6	7	8	9	10	11	12	1	2	3	4
Season		Rainy						Dry 1			Dry 2	
1 rice per year					1	0	0	0				
Cucumber												
Lettuce												
Chinese lettuce												
2 rice per year												
Lettuce												
Peppermint												
Chinese lettuce												

Source: SUSPER project production survey 2002

Figure 6 – Cropping calendar in Sikhottabong district

Main season	Rainy Season							Dry Season				
Solar month	A	M	J	Jy	A	S	O	N	D	J	F	M
Lao month	5	6	7	8	9	10	11	12	1	2	3	4
Season												
<b>Exclusive Vegetable grower</b>												
Tomato												
Chilli												
Egg plant												
Lettuce												
<b>Rice and vegetable grower</b>												
1 Rice/ year												
Egg plant												
Yard long bean												
Chilli												
2 rice/year												
Egg plant												
Chilli												

Source: SUSPER project production survey 2002

Figure 7 – Cropping calendar in Naxaythong district

Main season	Rainy Season							Dry Season				
Solar month	A	M	J	Jy	A	S	O	N	D	J	F	M
Lao month	5	6	7	8	9	10	11	12	1	2	3	4
Season												
1 rice per year												
Vegetable (1-3)												
Kangkong, cucumber, Yard long bean												
2 rice per year												
Cucumber												
Kangkong												
Chinese lettuce												

Source: SUSPER project production survey 2002

## 2.4. General constraints of production

Based on the analysis of the survey and bibliography, some general constraints for peri-urban vegetable growers can be raised:

- Market constraints: High Price instability = high risk (year to year and between years).

- Climatic hazards especially floods during July and August.
- Technical constraints: Management of pests, management of fertilisers.
- Access to inputs (fertiliser, pesticides).

## **B) MARKET**

### **1. General overview of vegetable market**

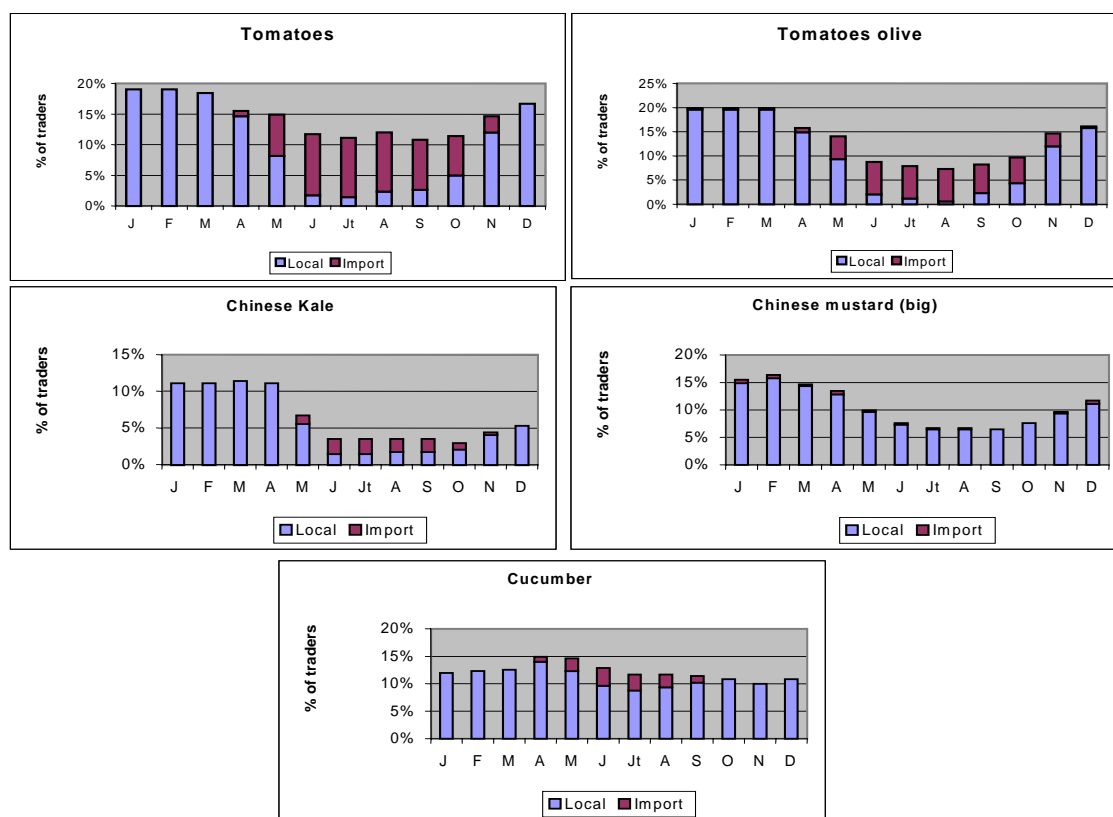
During the last 10 years, the consumption of vegetable in Vientiane has tended to increase. This demand should further increase following a natural increase of the population of Vientiane and the increase in the standard of living. Nevertheless, the budgets for vegetables is still very low since most of the Vientiane urban households (85 %) spend less than one dollar/day for food consumption (MAF, 2002). Average consumption of fresh vegetables is around 150 g/day (MAF, 2002). Recent analysis shows a differentiation of the consumption pattern. If cucumbers are consumed by all types of households, some vegetables such as tomatoes, cabbage, Chinese kale, lettuce are mainly consumed by richer households. Conversely bamboo shoots, water convulvus and eggplant are consumed by poorer households (MAF, 2002).

### **2. Some preliminary results from market survey**

The market surveys were carried out in the three main markets of Vientiane: Thongkhankham, Thatluang and Kuadin. A first survey was done in June 2002 and focused on the origin of the products. A second survey, carried out in late July- early August on 50 traders, was focussed on traders' strategy.

#### **2.1. Market supply calendar**

Based on preliminary analysis of the first survey, the percentage of traders that sell local or imported product shows the type of supply (Figure 8). It shows that, for round tomatoes and olive tomatoes, most of the traders rely on imports for supply in the rainy season, from June to September. During this period, almost half of the traders engaged in the tomato trade stop their activities because they can not find product. Chinese Kale shows a market pattern similar to tomatoes, more than a half of the traders who sell Chinese kale during the dry season, stop selling during the rainy season. For Chinese mustard, imports are scattered all the year round. Very few traders rely on imports for their trading activities. During the rainy season from June to September, half of the traders involved in the Chinese mustard trade in dry season stops their activities. For Cucumber, imports are concentrated in the rainy season. They appear as a small complement to the still available local supply. As cucumber is the main vegetable consumed, no scarcity seems to occur since the number of traders involved in this trade is quite constant all year.

**Figure 8 – Origin of the market supply for selected products**

Source: SUSPER project Market Survey.

## 2.2. The quality of products

Laotian products are said to be preferred to imports because consumers consider Lao products as higher quality than imported (MAF, 2002). Data from market qualitative surveys confirmed the preference of Lao products that are considered as fresher (with a higher potential for preservation), cleaner (lower use of pesticides) and better in term of taste, e.g. tomatoes.

**Table 4 – Perception of quality of the products**

Characteristics	Round Tomatoes	
	Local	Import
Colour*	74%	72%
Size*	76%	70%
Stains*	50%	50%
Hole*	59%	41%
Freshness*	100%	0%
Length of conservation (days)	4	3
Use of chemicals**	15%	90%
Taste*	91%	51%

Source: Susper project market survey 2002.

NB: \* = % of the respondents who indicate that the characteristic of the products is good, as good colour, low size, few stains, few holes, good freshness, good taste.

\*\* = % of respondents who indicate that the product has been produced with an intensive use of chemicals.

### **2.3. Price fluctuation**

Because of a high variation of availability according to the season and especially the overall scarcity of local production during the rainy season, the price index of vegetables in the rainy season is twice that of the dry season. Thus, the price of vegetables is subject to high annual variability.

### **2.4. General traders constraints**

Based on a bibliography and interviews, the main constraints for traders are:

- The price instability
- The availability of products
- The quality of products
- Low margins

There are strong opportunities for the development of vegetable production in peri-urban area of Vientiane, since the demand of fresh vegetable is increasing and the Laotian products are preferred to imports. Nevertheless, the actors of the sector still face several constraints that are mainly due to high seasonal fluctuation of the products. The main issue for the development of the vegetable sector is adapting to the market demand for quality (type of product), quantity (seasonality) and regularity. To this end, dissemination of market and production information among actors is crucial and the development of co-ordination between them is a way to face this issue. The meeting held in Vientiane in December had both these objectives: disseminate information on production and market among actors; facilitate direct exchange of information between them, and help the emergence of new coordination processes.

## **III- RESULTS OF THE MEETING “MARKET OPPORTUNITIES FOR VEGETABLE DEVELOPMENT”**

The meeting held in the Institute of Plant Protection had three main objectives:

- Present some preliminary results of Production and Market surveys,
- Assess with traders, farmers and local agents in charge of vegetable production and marketing development, see the list of participants in annexe 2, the market opportunities and issues for development of the vegetable commodity chain in Vientiane municipality.
- Identify constraints and outline solutions in order to face those constraints and take advantage of opportunities (see program of the meeting in annex 3).

For the latter 2 objectives, to allow more concrete discussion among participants, Round tomatoes had been chosen since this product appears to have great potential and is subject to import competition. Secondly, the discussion was steered to technical production problems on which technical experiment<sup>3</sup> had been developed for the project.

## A) ROUND TOMATOES MARKET CALENDAR

Using participatory technique for elicitation (see protocol in annex 4), participants established a market calendar for round tomatoes. This calendar outlines the level of availability of local Round tomatoes from local production, the main local origins, the level of imports, and the level of price (Figure 9).

Figure 9 – Calendar of Market situation for Round tomatoes

festival			X	x							X	X	X		
Season		DS	Rainy Season								Dry Season				
Month		M	A	M	J	Jl	A	S	O		N	D	J	F	
Lao month		4	5	6	7	8	9	10	11		12	1	2	3	
season			Rainy							Dry 1					dry 2
period		1		2				3							
local supply*		0	0	1	2	2	2+	3	3		3	3	3	3-	
Main local source	Hatsayphong (Hadokeo)			+	+	+			+		+	+	+	+	
	Sikhottabong						+								
	Nong Da						+	+							
	Thabok										+	+	+	+	
	Thadindeng										+	+	+	+	
import*		2	2	1	1-	1-	1-	0+	0+		~	~	~	~	
Price level		3	3	2	2	2-	2-	1	1		1	1	0	0	
		>5000 Kip/kg		3 - 5000 Kip/kg				<3000 Kip/kg							

Legend: 0: none; ~: almost none; 1: low; 2 medium; 3: high

Source: Meeting December 2002

Based on those criteria, three contrasting periods of the market situation could be identified:

- Period 1 – The April and May period (end of dry season, beginning of rainy season) is characterized by a very low availability of local production in the market, a high level of imports and high price (>5000 kip/kg).
- Period 2 – The June to September period (rainy season): local tomatoes begin to be available in July and August, most of them come from Hatsayphong district (Hadokeo village) and in September from Sikhottabong districts (Nong Da).

<sup>3</sup> During the first year of the project the technical component of the project had developed and tested new technologies as grafting and under-shed production that allow an increase of the tomato's yield and facilitate the production during the rainy season.



During this period, the import level decreases (but remains important) and the price decreases.

- Period 3 – The October to March period (end of rainy season and dry season) is characterized by a high level of local production, surplus can occur and farmers face difficulties selling their production. Tomatoes come from Hatsayphong, Thabok, and Thadindeng. During this period, prices reach a very low level, some imports still being reported.

In term of quality, traders confirmed their preference for local tomatoes because of the freshness and general aspect of the product (that confirmed data from marketing survey activity 2).

Even if there is a common trend for pricing according to those periods, a high variability of price within each period is mentioned by the participants. According to them, this high instability, especially at the end of dry season and during the rainy season, should be controlled by public intervention and control of the border trade (on imports from day to day).

## B) MARKET OPPORTUNITIES AND ISSUES FOR ROUND TOMATOES

Based on this assessment, market opportunities and issues have been raised for each period. Participants identified the main constraints, and solutions were discussed with and among participants. Results are summarized in Table 5.

**Table 5 – Issues / constraints and proposed solutions.**

Period / Issue	Constraints	Proposition
Period 1 – April-may <b>Develop local production to complement imports.</b>	Technical constraints: slow growth, no fructification.	Introduction of new variety (drought tolerant, olive tomatoes). Develop information on varieties and characteristics. Use soil protection techniques or under-shelter techniques
Period 2 – June to September <b>Compete with Thai products.</b>	Technical constraints: Disease, Low yield. Climatic risk (flood). High price of inputs (higher than in Thailand) Low profit compared with other vegetables.	
Period 3 – October to march <b>Adapt the production to the demand.</b>		Diversification of the production (information on market opportunities) Development of agro-processing

## **1. Period 1 - April and May period, end of dry season-beginning of rainy season**

Imports from Thailand are considered as a necessity for traders since there is almost no local production available. The main issue for Lao production is then: *to produce during this period of local scarcity to meet the market demand.*

Farmers argue that they meet technical problems during this period. Even they have a source of water for irrigation, they obtain slow growth and no fructification. As farmers from Thailand can produce during this period, farmers could not understand the reason of their low performance.

Solutions and further research raised by participants:

- Farmers reported on the need of new varieties (tolerant to draught) and more information on varieties characteristics.
- The Agricultural Service proposed to the farmers that they test mulch techniques to cover the soil during the peak of dry season and under-shelter cultivation techniques, but farmers complain that high investment still an impediment to adopting the latter.

Further discussion between participants unveiled a lack of information (and comprehension) on the way that farmers from Thailand grow tomatoes during this period, the need for further studies on the production techniques applied by Thai farmers had been identified.

## **2. Period 2 - June to September period, Rainy Season**

Although local products are available, imports from Thailand are still high and compete with local production. Even length of conservation (harvest to market) is lower for Thai products, traders also import Thai products at lower prices<sup>4</sup>. The low price during this period is attributed to the imports of Thai Product.

The opportunity discussed was: “How to compete with Thai product?”

Several problems were perceived as impediments for local production competitiveness:

- Technical problems: low yield (few fruits) and high occurrence of disease.
- Higher price level of inputs than Thailand since most of inputs are imported from Thailand.

Two other factors have been raised as constraints for production such as the reduction of the area under cultivation due to flooding and the higher profitability of other crops during this period.

Base on this assessment, no clear solution has been identified by participants. However, a need for further research to compare the cost of production between Lao

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<sup>4</sup> These qualitative results are different from those of the market survey, according to which purchasing price of local and Thai product are similar. Complementary information is then needed.

and Thailand exists. This research should assess if Thai products really have lower production costs, and the factors that could explain this state.

### **3. Period 3 - October to March period, dry season**

This period is characterized by local overproduction that leads to very low prices. Nevertheless, traders still import some products from Thailand to keep a good relationship with their Thai suppliers. The main issue is then: "How to adapt production to demand and reduce over production?".

The main solution raised by participants is the development of agro-industry to absorb production surplus and diversification of the production. Farmers especially show a high interest in terms of information about alternative production to be carried out during the dry season. According to traders, some products as big onion, carrot, chilli and lemons are in high demand and could have opportunities for Lao Producers. However, farmers complained that for big onion and carrot technical problems and lack of technical information on cultivation practices would be a hindrance.

Complementary to the three issues raised according to the season, calendar elicitation allowed identification of two transversal issues for the commodity chain development of tomatoes.

### **4. Increase the quality of the products.**

According to participants, increasing the quality of the products is not a major issue compared with adapting quantity to demand and the related price instability.

### **5. Reduce price instability.**

The participants mentioned the strong fluctuation of the price over the year, especially from April to September, determined by the application of the custom regulations by the concerned offices that reduce "illegal" imports from Thailand. The price risk appears to be high especially for farmers.

To resolve this instability, farmers attention focused on the lack of regular information about the market, their demand in term of information is simple *what and when to produce?* For them, information should be provided by an official service (It's worth noting that they didn't know about market information broadcast by the Market Information System developed by the FAO project). The meeting was an occasion to inform them about this source of information. Furthermore, farmers were not aware of any organisational solution to cope with the problem of instability as collective regulation.

Traders called for more regularity in production. Nevertheless, they didn't show strong interest in planning production with traders or developing commercial agreements with farmers. Discussion shows that traders mainly focussed on the interest of have good relationship with Thai traders to have product during the shortage season. It also shows few are interested in establishing agreements with local farmers since they argue that they prefer Lao products (fresher, longer storage ability).

Nevertheless, both sides were interested by the opportunity offered by the meeting to discuss directly the market situation over the year. The farmers have to better understand market demand and find new market opportunities especially to diversify their production. The traders have to inform local farmers and encourage them to produce during the shortage period.

Based on this assessment, the periods of surplus, shortage and the demand for several products were identified by traders during the meeting (Figure 10). It allowed participants to share information on the diversity of the market situation for products, and for farmers to assess market opportunities to develop new productions or to adapt their cropping calendar. Thus, if most of the vegetables are in over-production in dry season, Chinese cabbage production is an opportunity for diversification. Coriander and lettuce offered a possibility in rainy season since there is shortage during this period that is not covered by imports from Thailand. Over production is mentioned for peppermint and eggplant in the beginning of the rainy season, concurrently, there is a shortage of tomatoes and Chinese lettuce.

**Figure 10 – Surplus, shortage and import period for selected vegetable product in Vientiane**

Rank	Product	Lao month	festival											
			DS		Rainy Season						Dry Season			
			M 4	A 5	M 6	J 7	Jl 8	A 9	S 10	O 11	N 12	D 1	J 2	F 3
						Rainy					Dry 1			
1	Chilli	period of surplus (+) of Shortage (-)				+	+	+	-	-				
		period of import												
	Onion	period of surplus (+) of Shortage (-)							-	-	+	+	+	+
		period of import												
2	Peppermint	period of surplus (+) of Shortage (-)	+	+					-	-				
		period of import												
3	Eggplant	period of surplus (+) of Shortage (-)	+	+					-	-	-			
		period of import												
	Tomato	period of surplus (+) of Shortage (-)	-	-					+	+	+	+	+	
		period of import												
	Cucumber	period of surplus (+) of Shortage (-)						-	-			+	+	
		period of import												
	Corriander	period of surplus (+) of Shortage (-)		-	-	-	-	-	-	+	+	+	+	+
		period of import												
	Chinese Cabbage	period of surplus (+) of Shortage (-)				+	+	+				-	-	-
		period of import												
	Chinese lettuce	period of surplus (+) of Shortage (-)	-	-	-						+	+	+	
		period of import												
	Lettuce	period of surplus (+) of Shortage (-)				-	-	-	+	+	+	+	+	
		period of import												

Source: meeting December 2002

#### IV- CONCLUSION AND FOLLOW-UP ACTIVITIES

The first year of activities of the sub-component and especially the first meeting provides, as a first step, to some stakeholders involved in the vegetable sector, some new information on vegetable commodity chains in Vientiane. This information was obtained from the preliminary analysis of production and market surveys carried out by the project. It also allowed testing of a methodology to generate new information on market opportunities and to share it among actors of the commodity chain.

Seasonal adaptation of production to market demand and reducing price instability appeared as major impediments to the development of peri-urban agriculture and especially vegetable production. This year has shown this kind of tool is complementary to other ways of broadcasting information on market situations and opportunities. Especially when used alongside the Market Information System, developed by the Planning department of the Ministry of Agriculture and Forestry and FAO. In the context of little co-ordination between farmers and traders it is easy to see how this component was useful. Presently both sides rely only on market rules for regulation. The information exchange and meeting allowed an initiation of the dialogue between farmers, traders and services in charge of vegetable development to identify some proposal of actions.

If this meeting underlined the lack of coordination and the high demand for market and technical information especially from farmers, it shows at this stage a low level of collective decision concern. To enhance and facilitate the design of co-ordinated solutions activities in the second year of the project, another meeting based on specific collection of data and an institutional analysis (as proposed in the planning activities, see annex 1) could be done. It will allow:

- i) The area of consensus between stakeholders to be identified
- ii) Deepen understanding of the functioning of agricultural services.
- iii) Assessment of possible involvement in action for all stakeholders including the local institution in charge of agriculture as an extension service and district agricultural and forestry offices.

In the mean time, short meetings based on the methodology developed during this meeting for market calendar and market opportunities elicitation but focussed on selected crops could be implemented at district levels. This will enhance dissemination of market information and facilitate emergence of coordination between stakeholders. To implement this component during year 2003, attention should be concentrated on the definition of a task force in charge of implementing this activity.

In terms of specific studies, the meeting revealed some specific needs that could be integrated in the work plan of other components:

- Further analysis of Thai tomato production to assess the competitiveness of Laotian products and possibly discuss technical innovations based on Thai experiences especially during the relevant period.
- Further analyse conditions and technical constraints of tomato production in late dry season - early rainy season to develop competitive production, and

evaluate possible benefit from technological innovation adoption developed by the project.

- Further analyse the strategies of farmers to understand their choice of crop in relation to their available resources, their market access, and information.

## V- BIBLIOGRAPHY

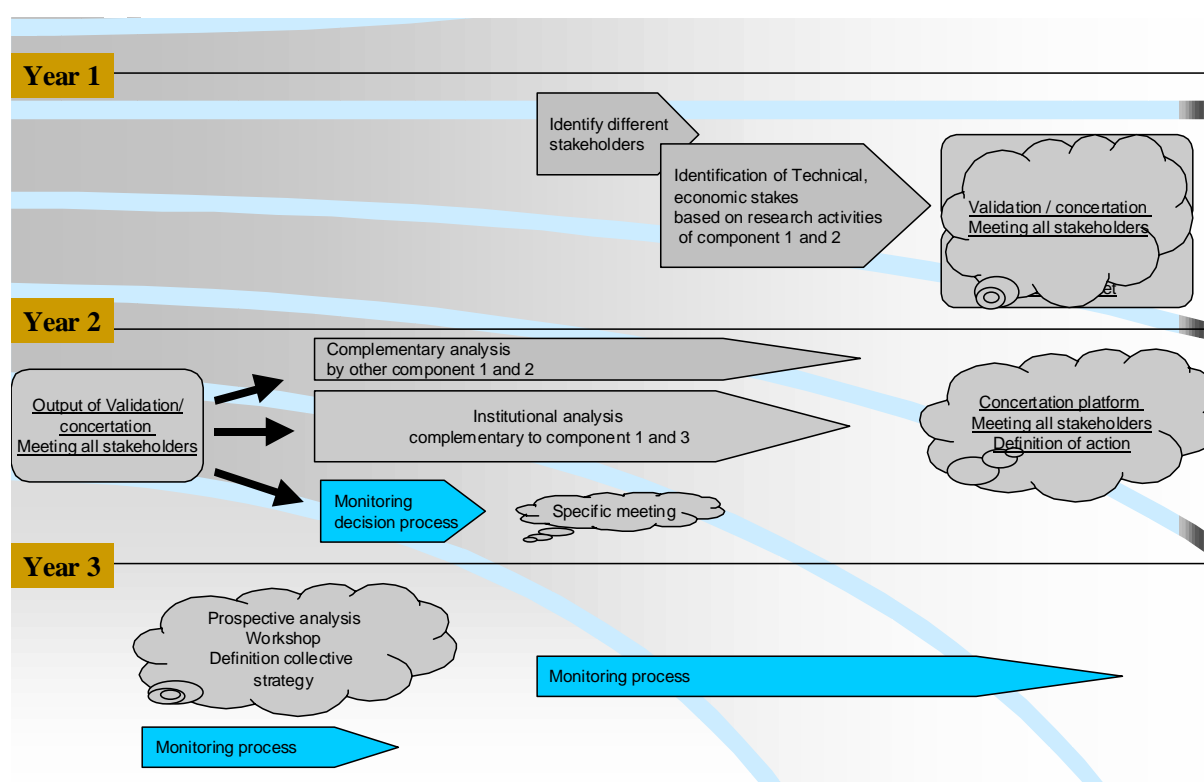
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## VI- APPENDIXES

### Appendix 1 – Steps and activities for the “institutional innovation” component



## **Appendix 2 – List of participants and program of the meeting**

Mr Lien (Farmer / Hatsayphong district)  
Mr Bouchou (Farmer / Hatsayphong district)  
Mr Khamphanh (Farmer / Hatsayphong district)  
Mr Dong (Farmer / Xaisettha)  
Mr Xana Sengvilay (District Agricultural and Forestry Officer / Sisattana district)  
Mrs Somphong (DAFO / Chanabouly district)  
Mr Saleusmy (Plant protection center)  
Mr Keo Oudone (Plant protection center)  
Mr Danin (Vientiane Municipality – agricultural sector)  
Mr Khan Khay (Vientiane Municipality – agricultural sector)

## **Appendix 3 – Program of the meeting**

Presentation of the objective of the meeting (Mr KamThanh, JF Le Coq)  
Presentation of the results of the production survey (Mr Thavisith)  
Presentation of the results of the market survey (Mr SomSak)  
Description of the market calendar of round tomato (Mr Kantian, JF Le Coq)  
Market Opportunities and issues for tomato commodity chain development, constraints and perceived solutions (JF Le Coq, Mr Kantian)  
Rapid assessment of vegetable market opportunities (Mr Kantian)

## **Appendix 4 – Protocol of elicitation for the market calendar**

A blank table is posted on a board for the participants to see a calendar year including month and seasons. Variables to be assessed are explicit to participants. To elicit variables, facilitators provide to the participants four cards with a number from 0 to 3. Month per month, for each variables (availability of local product, the main origin, and the availability of import products, price, variability of price and quality definition), participants are asked to give a note from 0: no to 3: high. A consensus is achieved about the final value to be written down on the blank table. At the end of the process, accuracy of the final table is checked with participants.